GE Energy

WattStation™ Wall Mount

User Manual

imagination at work

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WattStation should be installed only a licensed contractor, and/or a licensed electrician in accordance with all applicable state, local and national electrical codes and standards. WattStation should be inspected by a qualified inspector prior to initial use. Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards.

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1. Grounding Instructions

1.1 Safety and Compliance

Read all instructions before using this product.

Do not use this product if the flexible power cord or charging cable are frayed, have broken insulation, or any other signs of damage.

Do not use this product if the enclosure or the charging connector are broken, cracked, open, or show any other indication of damage.

This document provides instructions for the wall mounted WattStation and should not be used for any other product. Before installing WattStation you should review this manual carefully and consult with a licensed contractor, licensed electrician, or trained installation expert to ensure compliance with local building codes, climate conditions, safety standards and state and local electrical codes.

1.2 Grounding Instructions

WattStation must be connected to a centrally grounded electrical system. Ground conductors entering WattStation must be connected to the equipment grounding bar inside the charger. Connections to WattStation shall comply with all applicable electrical codes and ordinances.

2. Installation Instructions

2.1 Installation Tools and Requirements

Recommended Tools:

- Slotted screwdriver (3/16" or ¼")
- Electric drill
- Wire stripper
- Wall mounting hardware (refer to section 2.2.1 or section 2.3.1)
- Phillip's head screwdriver
- Water-tight conduit hub (hardwired version only)

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Torque Specification Table:

COMPONENT	TORQUE VALUE	TOLERANCE
M5 x 0.8 screw	30 in-lb	+/- 2 in-lb
#12 thread-cutting screw	30 in-lb	+/- 2 in-lb
10-32 UNF screw	35 in-lb	+/- 5 in-lb
6-32 UNC screw	12 in-lb	+/- 2 in-lb
Fuse block lugs	45 in-lb	+/- 2 in-lb
Field wiring lugs	50 in-lb	+/- 2 in-lb
Din-rail mounted terminal block lugs	12 in-lb	+/- 2 in-lb
Contactor lugs	50 in-lb	+/- 2 in-lb
Ground bar lugs	35 in-lb	+/- 2 in-lb
M3 x 0.5 screw	12 in-lb	+/- 2 in-lb
#8 thread cutting screw	30 in-ib	+/- 2 in-lb
3/4" cable strain relief fitting	Hand-Tight + 1/4 turn	N/A

2.2 Plug-in Version

2.2.1 Before Installation

WattStation should be installed only by a licensed contractor, and/or a licensed electrician in accordance with all applicable state, local and national electrical codes and standards.

- Ensure that a dedicated circuit, capable of supplying 30A at 208-240 VAC, is available
- Power feed must have a centrally grounded neutral in order for WattStation to function correctly.
- Wall receptacle must be a NEMA 6-50 outlet. A recommended 40A upstream circuit breaker, located either in a panelboard or load center, should be used
- Distance between the wall power receptacle and WattStation mounting should be less than one (1) foot
- Wall power receptacle with a weatherproof locking cover is required
- Recommended mounting hardware for wood studs are 3/8" x 2" hex head lag bolts. Recommended mounting hardware for concrete walls are 3/8" x 1-3/4" concrete hex screws or 3/8" x 1-7/8" concrete anchors

WARNING: Danger of electrical shock or injury. Turn OFF power at the panelboard or load center before working inside the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

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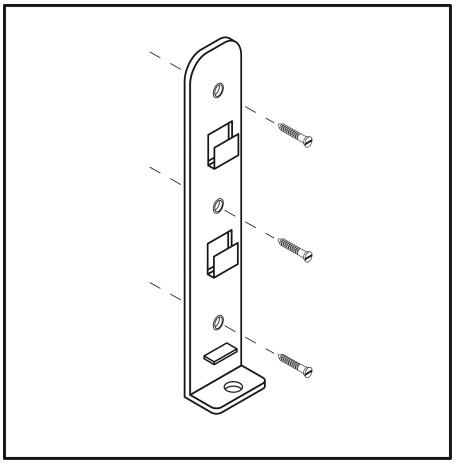
2.2.2 Installation

Step 1: Carefully unwrap the packaging and make sure the following items are present:

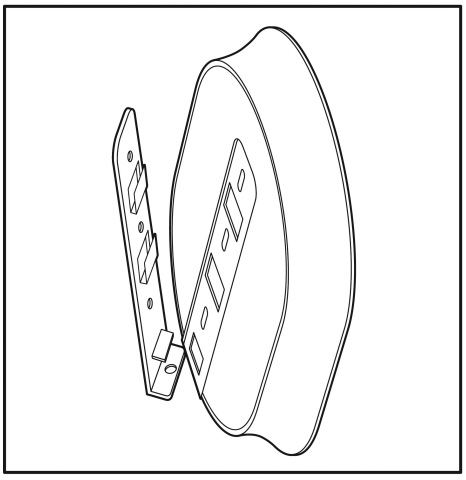
- Wall Mounted WattStation unit
- Mounting wall bracket
- Template for wall-mounting holes
- Key for WattStation mounting lock (stored inside WattStation unit)

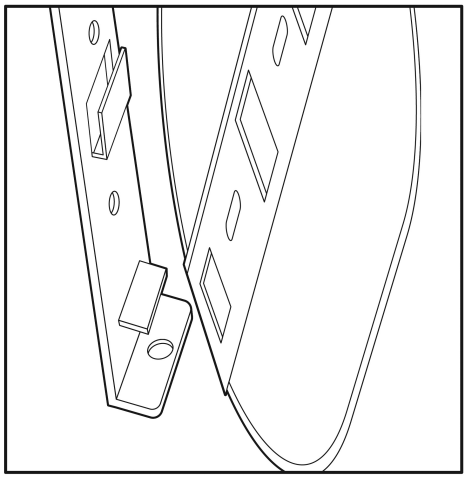
Step 2: Check for any damage to the unit, the cord or the connector. If no damage is noticed, proceed to step 3. If damage is noticed, call 1-888-GE-RESOLve.

Step 3: Install wall mount bracket to the wall. Use the provided template to locate wall-mounting holes to ensure hole locations match the bracket. Distance from floor to bottom of wall mount bracket should be 18" minimum for indoor use and 24" minimum for outdoor use. Distance to the top of the unit should be 48" maximum for all applications per NEC 625.29. For ADA compliant installation, refer to ADA accessibility guidelines, section 4.2



Step 4: Slide WattStation unit onto the mounting bracket, ensuring that the opening in the back plate bracket aligns with the tab on the wall mount bracket





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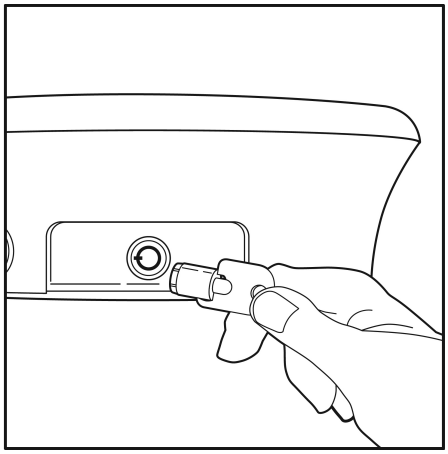
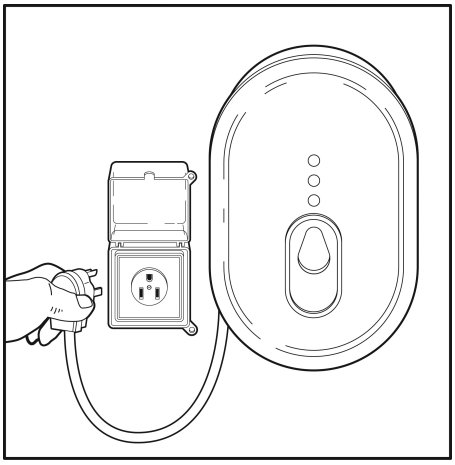
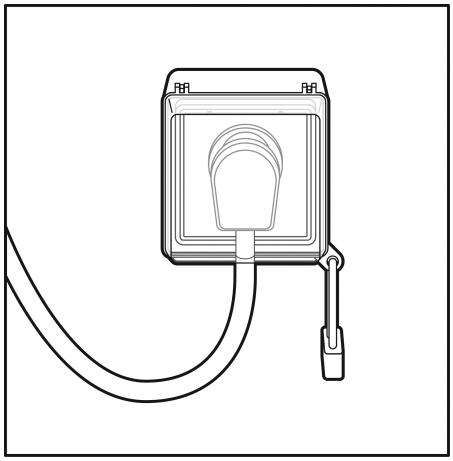
Step 5: Lock the WattStation unit onto the mounting bracket using the provided key



Step 6: Unwrap the plug-in cord and plug into the wall receptacle



Step 7: Lock weatherproof receptacle cover (not supplied with WattStation)



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2.3 Hardwired Version

2.3.1 Before Installation

WattStation should be installed only by a licensed contractor, and/or a licensed electrician in accordance with all applicable state, local and national electrical codes and standards.

- Ensure that a dedicated circuit, capable of supplying 30A at 208-240 VAC, is available
- Power feed must have a centrally grounded neutral in order for WattStation to function correctly.
- A recommended 40A upstream circuit breaker, located either in a panelboard or load center, should be used
- Power and ground wires for WattStation go in through the back of the unit as a default. Optionally, the power may be fed through the bottom or top of the unit. Plan ahead on how you will supply power to WattStation
- Recommended mounting hardware for wood studs are 3/8" x 2" hex head lag bolts
- Recommended mounting hardware for concrete walls are 3/8" x 1-3/4" concrete hex screws or 3/8" x 1-7/8" concrete anchors

WARNING: Danger of electrical shock or injury. Turn OFF power at the panelboard or load center before working inside the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

2.3.2 Installation

Step 1: Carefully unwrap the packaging and make sure the following items are present:

- Wall Mounted WattStation unit
- Mounting wall bracket
- Template for wall-mounting holes
- Key for WattStation mounting lock (stored inside WattStation unit)

Step 2: Check for any damage to the unit, the cord or the connector. If no damage is noticed, proceed to step 3. If damage is noticed, call 1-888-GE-RESOLve.

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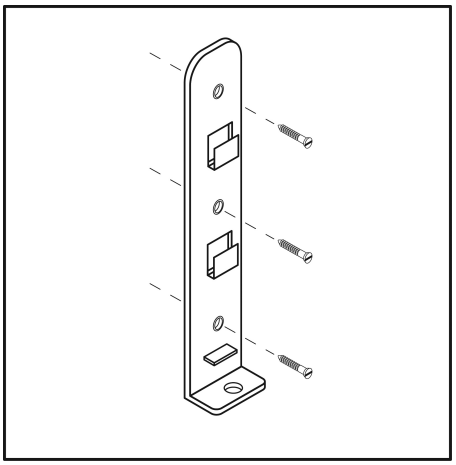
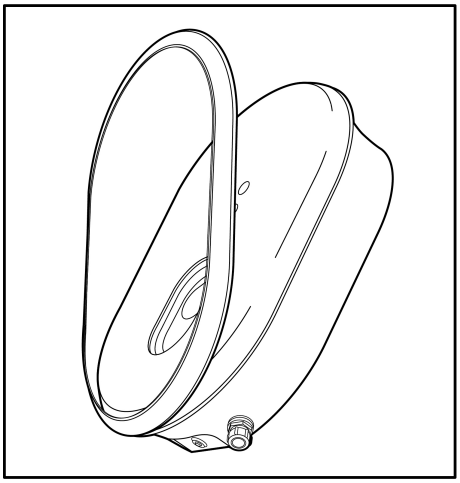
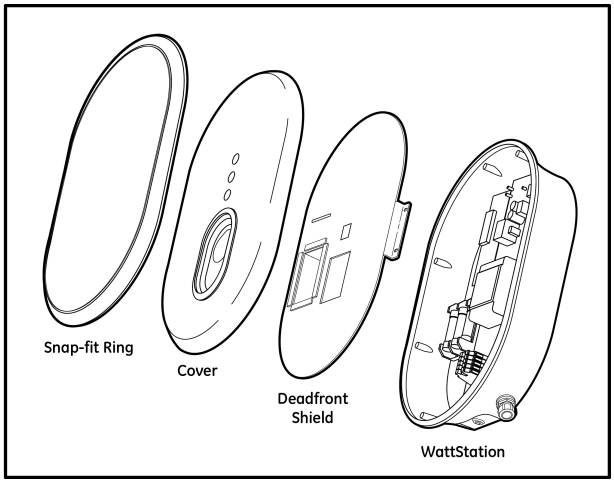
Step 3: Install wall mount bracket to the wall. Use the provided template to locate wall-mounting holes to ensure hole locations match the bracket. Distance from floor to bottom of wall mount bracket should be 18" minimum for indoor use and 24" minimum for outdoor use. Distance to the top of the unit should be 48" maximum for all applications per NEC 625.29. For ADA compliant installation, refer to ADA accessibility guidelines, section 4.2. Make sure the bracket is aligned so that power wire will fit through the WattStation enclosure holes (for back-entry wiring only).



Step 4: Remove the oval snap-fit ring to access the cover hardware. Take off front cover and the deadfront shield.





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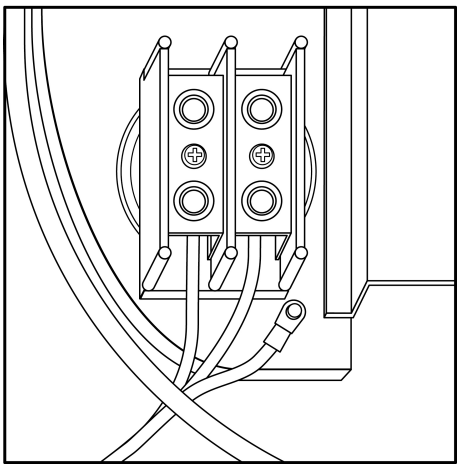
Step 5: Remove the wire pigtail from the line side of field wiring block and discard.



Step 6: Feed the supply power and ground wires through WattStation enclosure holes. Slide WattStation onto the mounting bracket, ensuring that the opening in the back plate bracket aligns with the tab on the wall mount bracket.

Step 7: Connect supply power wires to line side of fuse block and ground wire to the ground bar.

Step 8: Replace the deadfront shield, the front cover with the provided hardware and the oval snap-fit ring.

3. User Manual

3.1 Basic Features

- Charging cord and connector provide link to electric vehicle
- LED ring provides illumination around connector
- Green indicator light displays when WattStation is in charge mode
- Red indicator light displays when WattStation is in fault mode
- On/Off button allows total power shutdown
- Tamper-proof / theft-proof key lock secures WattStation to the wall bracket
- Padlock option on connector provides additional physical security
- Availability of plug-in or hardwired version provides installation flexibility
- Entry options for supply power cable include top, bottom and rear and provide additional flexibility for the hardwired version

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3.2 Turning WattStation On and Off

WattStation can be turned on by pressing in the On/Off pushbutton. When on, the LED ring around the connector will glow white.

WattStation can be turned off at any time by pressing the On/Off button again. The LED ring will turn off.

3.3 Connecting and Disconnecting to Vehicle

Connect to Vehicle
When the connector is seated in the WattStation holder, press and hold the button on the connector handle and pull away from the holder until it is fully removed.

Press and hold the button on the connector handle and insert into the vehicle's inlet socket. Release the button on the connector handle when fully connected to the vehicle inlet socket.

Once the WattStation handle is connected to the vehicle, the charge status indicator will illuminate green.

Disconnect from Vehicle:
WattStation can be disconnected from the vehicle at any time.

Press and hold the button on top of the connector handle and pull the handle away from the vehicle inlet socket. The charge status indicator light will turn off.

Replace the connector handle into the WattStation holder by pushing the connector into the inlet. This will ensure the connector is locked with the metal inlet of the WattStation holder.

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3.4 Technical Information

SAE Compliant	Level II per J1772
Vehicle Interface	SAE J1772 EV connector
Cable Length	16' cable
AC Max Charging Power Output**	7.2 kW (240VAC @ 30A)
Voltage and Current Rating	208-240VAC @ 30A
AC Power Input	208-240VAC requiring only Line 1, Line 2 and Earth ground
Recommended Service Panel Breaker	2-pole 40A breaker on dedicated circuit
Ground Fault Protection	Internal 20mA CCID with auto-re-closure, does not require a GFCI in service panel
Ground Monitoring	Ensures ground is present between vehicle and WattStation, and between WattStation and load center
Standby Power	0 W when not charging and turned off by pushbutton switch
Outdoor Rated	NEMA 3R
Safety Compliance	ETL and CETL listed conforming to UL 2594, 2231 and 1998
Surge Protection	6kV @ 3000A
EMI Compliance	FCC Part 15 Class A
Operating Temperature	-30°C to +50°C ambient
Operating Humidity	Up to 95% non-condensing
Unit Weight	35 lbs
Dimensions	24" H x 16" W x 6" D

**WattStation determines the maximum power consumption. EV determines the actual power consumption.

3.5 Fault Indication

When the fault indicator illuminates red, WattStation is indicating a fault.

WattStation faults will be either self-correcting or non-correcting.

- Self-correcting: When the fault icon and LED ring around the coupler are illuminated, the system is experiencing a self-correcting fault. In this state the system will reset after 15 minutes, or a manual reset can be performed. Simply remove and replace the connector to the EV, or power cycle the unit by holding down the power button until the system turns off and pressing the power button again to restart.
- Non-correcting: When fault icon is illuminated and LED ring is not illuminated a fault has occurred which requires a manual reset. Simply remove and replace the connector to the EV, or power cycle the unit by holding down the power button until the system turns off and pressing the power button again to restart.
  If a fault condition persists have your local certified electrician inspect the system.

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There are six types of faults that can occur:

1. Ground Fault, Self-correcting
2. Contactor closed when not charging Fault, Non-correcting
3. Self-Test Fault, Non-correcting
4. Overvoltage/Undervoltage Faults, Self-correcting
5. Overload Fault, Non-correcting
6. Fan Fault, Non-correcting

Ground Fault:
WattStation can detect the presence of ground faults with a threshold of 15–20 mA during the charging cycle. Once a ground fault is detected, WattStation will stop charging the vehicle and the fault status indicator will turn red.

If four (4) such attempts to restart charging have occurred, WattStation will lockout the station. The lockout will prevent any vehicle from being charged until the plug has been disconnected from the vehicle. The fault indicator will illuminate as solid red. **It is highly recommended that service personnel examine the EV (electric vehicle) and/or the charging cable to determine the cause of the multiple faults before re-energizing.**

If a ground fault is present immediately after WattStation begins charging, the unit will stop charging and immediately lockout the station. The lockout will prevent any vehicle from being charged until the plug has been disconnected from the vehicle. The fault indicator will illuminate as solid red.

Contactor closed when not charging Fault:
WattStation internally monitors itself to ensure that it is only supplying power to the connector when it is in a charging cycle. If WattStation is supplying power to the connector in a non-charge cycle, WattStation will lockout. The lockout will prevent any vehicle from being charged until power has been cycled. The fault indicator will illuminate as solid red.

Self-Test Fault:
WattStation internally monitors its operating performance. If there is a failure of its performance, WattStation will lockout. The fault indicator will illuminate as solid red.

Overvoltage/Undervoltage Faults:
WattStation monitors line voltage and cuts power to the EV if the voltage goes out of range. After one (1) minute, it rechecks the voltage and will automatically re-enable charging if the voltage returns to an acceptable range. The fault indicator will illuminate as blinking red.

Overload Fault:
WattStation monitors the current being drawn by the EV. If this current exceeds the capability of the unit's fuse, charging will be interrupted and the fault status indicator will illuminate and turn solid red. Disconnecting WattStation connector from the EV can reset this fault.

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Fan Fault:
WattStation is not suitable for vehicles that require ventilation. It will provide fault indication if a vehicle requests fan ventilation, as per SAE J1772. The fault indicator will illuminate and turn solid red. The fault will reset if the user removes the WattStation connector from the vehicle.

3.6 Fuse Replacement

In the event that a fuse needs to be replaced, de-energize the upstream breaker feeding this equipment before opening the cover. Remove the front cover as described in Step 4 of Section 2.32. The fuses will then be accessible through the dead front shield. Remove old fuses by using a fuse puller tool. Replacement fuses should be Cooper-Bussmann NON-40, Class K5.

4. LIMITED WARRANTY FOR GE WattStation™ (Wall) ("this Warranty")

WARRANTY
Any one or more of the following actions acknowledges that you have read and agree to the terms of this warranty agreement: Your use of the **GE WattStation (Wall)** packaged with this Instruction Manual (the "Hardware"), online product registration of the Hardware, or your return of the enclosed Registration Card. GE's warranty obligations for this Hardware product are limited to the terms set forth in this Limited Warranty and are limited by and subject to the Exclusions and Limitations set out below.

GE warrants that this Hardware product shall be free of defects in materials and workmanship under normal use for a period of **three (3) years** from the date of manufacture (the "Warranty Period"). If a defect in the Hardware arises and a valid claim is received within the Warranty Period, your sole and exclusive remedy will be for GE, in its sole discretion and to the extent permitted by law, to (1) repair the defect in the Hardware at no charge, using new parts or refurbished parts, or (2) exchange the Hardware with new or refurbished hardware that is functionally equivalent to the original Hardware, (the repaired Hardware and the exchanged hardware are called the "Remedied Hardware"). Any Remedied Hardware product will be warranted for the remainder of the original warranty period or ninety (90) days from delivery to the customer, whichever is longer. In order to receive the remedy set forth above, you must contact GE during the Warranty Period at 888-437-3765 and provide the model number, serial number and date of purchase. Upon GE's determination that the Hardware product should be returned to GE, return the Hardware and include with each returned item of Hardware (i) a copy of your original purchase invoice or receipt to verify your warranty; (ii) your name, address, and telephone number; (iii) the Return Materials Authorization (RMA) number.

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In addition to the foregoing Hardware product warranty, during the Warranty Period, GE shall also provide telephone (888-437-3765) technical support assistance.

Please note that the above warranty obligations of GE do **not** apply to installation service of the Hardware.

EXCLUSIONS AND LIMITATIONS

This warranty applies only to the Hardware manufactured by or for GE that can be identified by the "GE" trademark, trade name, or logo affixed to it. This warranty does not apply to any non-GE hardware product or any software, even if packaged or sold with the Hardware. Software distributed by GE with or without the GE brand name (including, but not limited to system software) is not covered under this warranty. Refer to the End User Licensing Agreement accompanying the software for details of your rights with respect to its use.

GE does not warrant that the operation of the Hardware will be uninterrupted or error-free. GE is not responsible for damage arising from failure to follow instructions relating to the Hardware's use.

This warranty does not apply to: (a) consumable parts, such as batteries, or protective coatings designed to diminish over time unless failure has occurred due to a defect in materials or workmanship; (b) cosmetic damage; (c) damage caused by use with non-GE products; (d) damage caused by accident, abuse, misuse, liquid contact, fire, earthquake or other external causes; (e) damage caused by operating the Hardware product outside the permitted or intended uses described by GE; (f) damage caused by service (including upgrades and expansions) not performed by GE, a GE-authorized service provider, an authorized representative of GE, or a qualified electrician; (g) a product or part that has been modified to alter functionality or capability without the written permission of GE; (h) defects caused by normal wear and tear or otherwise due to the normal aging of the product; (i) removed or defaced GE serial numbers; or (j) damage caused by or via the network on which the Hardware product is used including, but not limited to, any online intrusion or attack.

Important: Do not open, take apart or disassemble the Hardware in any way. Doing so may cause damage that is not covered by this warranty. Only GE or a GE authorized service provider should perform service on the Hardware.

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